



Pointools Supports Architecture Projects

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Hi-tech 3D modelling software from Pointools is being employed by University College of London (UCL) to create 3D computer visualisations of stunning environmental installations. Researchers at the acclaimed Bartlett School of Architecture are using the Pointools software to process millions of laser scanned measurements into highly detailed 3D models. These are then used to complete environmental analysis of potential sites and create a digital landscape in which installation prototypes could be formed, honed and tested. The projects making the most of this high tech surveying and modelling solution included a 'rainbow maker' and '55/02' a steel structure designed to maximise key site lines at it's location on the shores of Kielder Water in Northumberland

Using a Faro Photon 120 3D laser scanner the researchers took detailed measurements of potential sites and their surrounding environments. These were fed into the Pointools software to create highly accurate representation of the site and were used to forecast climatic conditions in which the installation would operate.



Subsequent measurements from the model were fed into the manufacturing and design processes, providing a mesh onto which bespoke parts could be mapped. Later scans recreated in Pointools were also used to further explore the potential of the installation, giving evidence of range of the current location and used to speculate a larger proposal in the context.

William Trossel the designer behind the 'rainbow maker' project commented, "This project used Pointools software as an aid to digital design. With an acutely accurate representation of the site we could manufacture individual parts perfectly. Attachments to trees were designed to fit snugly around trunks and provide an open framework which the tree could grow into and consume."

'Slow becoming delightful' was an installation in a small pocket of space within Kielder Park cleared by a storm. Designed to draw attention to the magical properties of weather events the installation consisted of a series of passively activated pressure vessels linked to an array of humidity tanks. Over time energy and water was collected and stored and when the 'ideal' circumstances were in place a fine mist was dispersed creating a rainbow.

Visitors to Kielder Park will come across '55/02' an experimental building by Bartlett based practice sixteen*(makers). Named after the latitude and longitude of it's location, the brightly painted steel structure is located within a stand of trees at Cock Stoor on the north shore of Kielder Water. The structure highlights the importance of location to its design, where key site lines contribute to its unusual layout, and seating orientates visitors towards particular views looking out onto the lake and smaller inlets nearby.

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About Pointools Limited:

The **Pointools** suite of software leverages the high-performance Pointools POD model file format for working with the largest point cloud models inside the broadest range of applications. Used by architects, engineers, contractors and surveyors to work with 3D laser scan data, Pointools software supports multiple workflows including Art & Entertainment, Forensics, GIS & Mapping, Heritage, Infrastructure, Manufacturing, and Security & Defence.



Pointools offerings include stand-alone applications, CAD software plug-ins, and a third-party development platform for point cloud processing and visualisation; uniquely enabling point cloud model reuse across Bentley, Autodesk, Rhino, and SketchUp applications without time-consuming translation.